ABSTRACT OF THE DISCLOSURE

A coronary probe for stimulation of the heart having a sophisticated retention structure. The probe is intended to be implanted in a vein of the coronary network for the stimulation of a left cavity of the heart by an active implantable medical device. It includes a flexible hollow sheath (10) including an internal conductor, an intermediate element (12) with a cylindrical body (24) bearing retention structure, and an end forming a probe-head (14) that is equipped with at least one stimulation electrode (20). The retention structure includes at least one relief (28) formed on the cylindrical body (24) and presenting, as seen from the end, an overall circular contour so as to have locally an increased diameter compared to the diameter of the cylindrical body. This contour is eccentric compared to the axis (D) of cylindrical body. The relief is more preferably a helicoid relief with a thread (30) extending around the cylindrical body, in particular a nonjointed thread, with a variable nominal radius growing then decreasing, and with constant step and of a round profile.